

A TRIP REPORT OF THE ANNUAL MEDICAL SURVEY
IN THE MARSHALL ISLANDS - MARCH 25-APRIL 25, 1978

During the period from March 25-April 25, 1978, the islands of Majuro, Ebeye, Utirik, Rongelap and Bikini were visited by the BNL team for medical examinations of the Marshallese exposed to radioactive fallout in 1954 and unexposed populations in the study group including, in addition, people residing at Bikini. 8 physicians and 11 other medical personnel, including a practitioner, nurse and three technicians from the Trust Territory Health Services, comprised the medical team. In addition, a group of 4 others from BNL accompanied the medical team for the purpose of carrying out environmental and personnel radiological monitoring at Utirik, Rongelap and Bikini islands. We were most fortunate in obtaining the services of specialists in several medical fields for the survey, including a gynecologist, endocrinologist (thyroid specialist), tropical medicine specialist, internist, pediatrician and ophthalmologist. The voluntary assistance of these physicians (without pay) contributed a great deal to the success of the survey. The Rongelap, Utirik and Bikini people were all cordial, friendly, and most cooperative. They had parties for the group and presented gifts of shells and native handicraft.

Examinations included medical histories and complete physical examinations, with examinations of the blood and urine. Blood samples were brought back for more sophisticated analyses at U.S. laboratories. Emphasis was placed on studies for possible late effects of radiation exposure, particularly with regard to the thyroid and malignancies of other organs. In view of the thyroid problems in the exposed populations, examinations of the thyroid were also carried out in a number of unexposed Rongelap and Utirik people as part of a study to determine the incidence of thyroid tumors in unexposed Marshallese people. In the outer islands, in addition to regular examinations, "sick call" was held daily. Treatment was administered to the degree possible under field conditions and in some cases patients were referred to the Trust Territory Health Services for hospitalization at their medical centers.

Health care of the people living on Bikini has remained a responsibility of the Trust Territory and the BNL medical team has, in the past, only carried out "sick call" when transiting the island as a "Good Samaritan" gesture. However, on arrival at Bikini this year, since the medical team was to remain for two days on the island, in addition to "sick calls", the people were invited to come aboard ship for complete medical examinations (including blood work) if they wished. Almost one hundred percent of the people opted to have the examinations, and all of the children and babies were examined by the pediatrician. They appeared to be extremely grateful for this opportunity.

The number of people examined on the various islands was as follows:

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| Island | Exposed | Unexposed | |
|----------|---------|-----------|----------|
| | | Adults | Children |
| Majuro | 22 | 31 | |
| Ebeye | 40 | 72 | |
| Utirik | 64 | 72 | 137 |
| Rongelap | 24 | 64 | 109 |
| Bikini | 1 | 64 | 72 |

In addition, a number of thyroid examinations were done on people not in the regular study group.

Medical findings will be reported separately. From preliminary examination of the findings, however, a few general statements may be made. Among the exposed people, no new nodules of the thyroid were discovered in the Rongelap group, though one new Utirik individual had a tumor of the gland. Several thyroid nodules requiring surgery were found in unexposed people also. No cancer was evident by clinical examination. Further tests for hypothyroidism, which had been detected previously in some of the exposed Rongelap people, were carried out and the results are being analyzed. Nutrition and health status of the people in the outer islands, including Bikini, was generally satisfactory and about the same as seen in previous years. As pointed out, a number of ailments required further treatment or hospitalization and these cases were referred to the Trust Territory Health Services.


At Bikini, in addition to the medical examinations, whole body gamma spectrographic analyses were carried out by the special BNL group accompanying the medical team under Mr. R. Miltenberger. The majority of the 144 people living on Bikini were counted. In addition, urine samples were collected for later radiochemical analyses. Before departure of the medical team, preliminary analysis of the gamma spectrographic data indicated a twofold or more increase in ^{137}Cs levels in the people compared with findings of a year ago. The spokesman for the Bikini people was Harold (the school teacher), who also was Acting Magistrate. I spoke to him about arranging a village meeting, but in view of the examination schedule he did not think it was necessary. (In the past we had held meetings with the people and informed them of the findings regarding their radiological status and answered questions.) Before departure of the medical group I informed Harold that preliminary data indicated increased body burdens of ^{137}Cs in the people and told him it seemed apparent the people had been eating fruits grown on the island (particularly pandanus, breadfruit and coconuts). He admitted that this was true and pointed out that due to leaking water cisterns there had been a water shortage and people had been eating more coconuts. I asked if they had been eating any of the coconuts from Enue island. He said they got them from that island about once a month. I suggested they eat more coconuts from Enue in view of the lower levels of radioactivity on that island, rather than eating the coconuts grown on Bikini. When the medical team left the island after two days, Mr. N. Greenhouse arrived to join the group in the radiological studies. They remained several days more on the island.

When I arrived at Kwajalein, I learned that Mr. Winkel, High Commissioner, and Mr. Ray from DOE were in Majuro to meet with the Kili Council. I talked to Mr. Ray by telephone and informed him of the preliminary findings on Bikini. I told him I believed the increase in body burdens of ^{137}Cs in the Bikinians was

possibly related to 1 people eating more coconuts on Likini, which may have been aggravated by the water shortage on the island.

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